

UNDERLAYER FOR POLYSILICON CRYSTALLIZATION

ABSTRACT OF THE INVENTION

Polycrystalline silicon in semiconductor device is usually crystallized at high temperature annealing. Generally a low heat conducting underlayer is needed to protect substrate and silicon from high temperature crystallization. This invention proposes a new underlayer that improves silicon crystallization and protects substrate during the annealing process. The semiconductor device is a thin film transistor suitable for use in such applications as liquid crystal displays, light emitting diodes, imaging sensors and photovoltaic cells.